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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/696,399	10/25/2000	Michel Casabona	DE9-1999-0075US1	3668
7590	11/29/2004			
DUKE W. YEE CARSTENS, YEE AND CAHOON, L.L.P. P.O. BOX 802334 DALLAS, TX 75380			EXAMINER VU, TUAN A	
			ART UNIT 2124	PAPER NUMBER

DATE MAILED: 11/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/696,399	Applicant(s) CASABONA ET AL.	
	Examiner Tuan A Vu	Art Unit 2124	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to the Applicant's response filed 7/29/2004.

As indicated in Applicant's response, claims 1-16 have been appealed. Claims 1-16 are pending in the office action.

In view of the Appeal Brief filed on 7/29/04 and the arguments presented therein, PROSECUTION IS HEREBY REOPENED. The finality of the last Office Action is herein withdrawn and a non-final rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over MacInnis, USPN: 6,487,723 (hereinafter MacInnis), in view of Saether et al., USPN: 6,405,219 (hereinafter Saether).

As per claim 1, MacInnis discloses a method for maintaining software products implemented in a plurality of files in client computer systems (e.g. Fig. 2) located decentralized

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relative to at least one central software (e.g. *system 200* – Fig. 2) maintenance institution wherein the client systems are connected with said maintenance institution via a network, such method comprising:

providing product information in the network system for making the product information available for said client systems (e.g. *Table T, broadcasts all versions* – col. 4, lines 23-44; Fig. 2); and

performing a software maintenance action for the product (e.g. Fig. 3, col. 5, lines 11-25) from the client site by downloading the data required for said maintenance from a combination of a top-level repository storing a set of files for the product (e.g. *system 200*, Fig. 2) and a local-level repository storing a first subset of files for the product (e.g. *terminal 203, 204*, Fig. 2; *internal table* - col. 4, line 45 to col. 5, line 25 – Note: internal table and local storage of files or hardware modules at terminal reads on local-level repository storing subset files specific to a given client), wherein the first subset of files is specific for a given client system.

But MacInnis does not specify that downloading from a combination of source and local repositories is downloading from a sequence of repositories, even though MacInnis' downloading process is the result of sequential actions taken by a higher-level repository and a local repository. The implementing of repositories in a plurality so to alleviate overburdening storage by one repository and to impart differentiation in purposes to each storage location was a well-known concept at the time of the invention. For example, MacInnis discloses selective downloading from different sources, e.g. channels or locations or network subsystems, based on descriptor table information provided by a network and retrieving of said versions therefrom (e.g. *loc 320*, Fig. 3; *network subsystems* - col. 5, lines 21-25; Fig. 4; col. 7, lines 32-58;

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combination of channels – col. 8, lines 41-59). The diversifying of network places, channels or sites for storing and distributing software as suggested by MacInnis (e.g. col. 6, lines 8-15) according to a given specificity or customization criteria is also taught in Saether's following method. Saether, in a method to distribute versions of software files to a network of target machines (e.g. content servers) for maintenance purposes using a distribution list analogous to the MacInnis's descriptor table as shown above, discloses the distribution of software in sequence from a more global server (e.g. *source servers* – Fig. 1) to more secondary global servers before updating the target machines (e.g. Figs. 2-3, 5). It would have been obvious for one of ordinary skill in the art at the time the invention was made to implement the plurality of storage channels as mentioned by MacInnis into a sequence of repositories going from a high to low level of order as suggested by Saether, because this would alleviate network bandwidth overuse (col. 8, lines 56-67), enable management of network data stored and identification for change at the highest level with the assistance of the intermediate level storage of files to handle the version adjustment and change activation prior to the delivery to the target machine as suggested by Saether (see col. 5, lines 9-64).

As per claim 2, MacInnis discloses a set of repositories, channels or sites for customizing the download of software according to a mapping/comparing process for a selected version or fix for a obsolete version (e.g. Fig. 2-5) but does not expressly disclose a mid-level repository storing a subset of files. Saether teaches an intermediate repository replicating the request of a version propagated from a high level server and build a final set of files for the target download (e.g. primary and secondary global servers - Figs. 2-3, 5), with the set of files to fulfill a version fix. In view of such concept and the teachings by MacInnis to use more than one sites to

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download the correctly identified version of files, it would have been obvious for one of ordinary skill in the art at the time the invention was made to use mid-level additional sites or repositories as suggested by Saether as an intermediate step for retrieving the correct upgrade files or version files so to enable upgrade preparation and prevent potential bandwidth overburdening as set forth above in claim 1.

As per claim 3, MacInnis does not disclose a fall back to an older program version by inactivating the newer version and activating the older version but teaches seeking of the most suitable version for an operating system (Fig. 4). The fall back to a previous version upon determining that a new upgrade is not compatible with the target operating system was a known concept and such is evidenced by Saether (e.g. step 174 -- Fig. 4). It would have been obvious for one of ordinary skill in the art at the time the invention was made to include the rollback step as suggested by Saether to the activation process by MacInnis because this would immediately and easily restore the failing system, should it encounters problems in activating the upgrade software file, to its functional state without extraneous clean-up operations or costly operating system complications by reactivating the original backup copy with its inherent machine state according to well-known practices.

As per claim 4, MacInnis discloses the method of upgrading including further:

generating of an input list downloadable from a server repository (e.g. *Table T*, *broadcasts all versions* – col. 4, lines 23-44; Fig. 2);

generating a list of files present on the target client system and comparing of those lists (e.g. Fig. 2; *internal table* - col. 4, line 45 to col. 5, line 25; Fig. 3A-B);

comparing the list of downloadable files with the list of files present in the target system (e.g. Fig. 4,5; col. 5, line 11 to col. 6, line 39); and

downloading a plurality of files which are not yet present in the target system (e.g. Fig. 4,5; col. 6, line 40 to col. 7, line 24).

But MacInnis fails to specify that the downloadable input list is retrieved from a sequence of repositories. But in view of the combined teachings by MacInnis and Saether in addressing the use of a sequence of source and global servers to enhance the step preparation of the upgrade files and alleviate overuse of network resources as set forth in claim 1, this limitation herein would have been obvious for the same rationale as set forth therein.

As per claim 5, MacInnis does not specify a total list being a merge of input lists from each repository with a priority of more local files; but discloses a version differential matching of input lists (e.g. Fig. 3-5) with a priority of local files (e.g. *internal table* - col. 4, line 45 to col. 5, line 25). But Saether, in the method of synchronizing of server files using multiple layers of distribution for version and files management (re claim 1) as mentioned above, discloses the merge into a delivery list of identified files retrieved from with isolated source servers to yield a final delivery version list for being activated at the target machines(e.g. Fig. 3A). It would have been obvious for one of ordinary skill in the art at the time the invention was made so that when multiple repositories level are implemented such as suggested by Saether, to modify the use of multi-channel file retrieval and file differential matching as taught by MacInnis and include therein a merging process applied on software list or input lists (Note: the requirement that priority be given to match local files at the target machine is inferred or implicitly disclosed from the teachings by Saether). One of ordinary skill in the art would be motivated to do so because

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using persistent means for merging files would ensure the non-duplication of unwanted data so well-known in persistence of data and version management processes; and also would lead to a specific and easy-to-propagate set of required files (e.g. input to a next level of service in sequence) thus enhancing the distribution of tasks imparted at each level of global server; as well as obviate burden in storage and overhead as suggested by Saether (see rationale for using primary and secondary server from claim 1)

As per claim 6, MacInnis does not explicitly disclose a look-aside procedure to access in a neighbor system making it easier for integrating the files in the target system but discloses possible access to the available sites suitable to provide the appropriate component files based on specification of the descriptor table (e.g. Fig. 2-5; *network subsystems* - col. 5, lines 21-25; Fig. 4; col. 7, lines 32-58; *combination of channels* – col. 8, lines 41-59); hence alternate ways to look for a file is suggested. Official notice is taken that a search being performed in a network designed so to provide alternative to reach for the nearest node or target point most easily accessible, or to seek out for the least resistive path was a well-known concept in the search algorithm at the time the invention was made. Hence, the look-aside procedure is suggested or implied when multi-channels or network subsites are to be accessed from MacInnis' method or from the delivery list built up in Saether's approach to seek source servers for file gathering from above. Based on this rationale and the above notice, it would have been obvious for one of ordinary skill in the art at the time the invention was made to make sure that the pointing to a external sites as suggested by MacInnis be such that the nearest system be located first as in a look-aside paradigm, like a neighboring system, because this would facilitate the retrieval of files

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as intended for the upgrade and resources are averted for not having to extend to far reaches or resources straining path to get to repositories for needed files.

As per claim 7, MacInnis discloses a system for maintaining software products, comprising:

one central software maintenance site; a network and a plurality of client computer systems decentralized relative to at least one central software (e.g. Fig. 2) maintenance site wherein the client systems are connected with said maintenance site via a network;

a set of repositories, e.g. a top-level repository for storing a complete set of files for the product and local-level repository for storing a first subset of files, such subset being specific for a given client system (e.g. *system* 200, Fig. 2; terminal 203, 204, Fig. 2; *internal table* - col. 4, line 45 to col. 5, line 25 – Note: re claim 1); to provide product information for a product for making the product information available for said client systems (e.g. Fig. 2; *network subsystems* - col. 5, lines 21-25; col. 7, lines 32-58; *combination of channels* – col. 8, lines 41-59);

wherein a given client computer system performs a software maintenance action for the product by downloading data required for said software maintenance action (e.g. Fig 3-5).

But MacInnis does not disclose that the set of repositories is a sequence of repositories nor does MacInnis explicitly teach that downloading from a combination of source and local repositories is downloading from a sequence of repositories. But these limitations have been addressed in claim 1 above.

As per claim 8, MacInnis does not disclose a sequence of repositories hierarchically arranged but Saether discloses a system of hierarchically arranged repositories (e.g. Fig. 1, 5-6). This limitation would have been obvious using the same rationale and motivation set forth in

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claim 1 above by combining the subsystems and multi-channels file retrieval by MacInnis to the hierarchy of servers as taught by Saether.

As per claim 9, this claim corresponds to claim 2, hence is rejected using the same grounds of rejection as set forth therein.

As per claim 10, this claim corresponds to claim 6, hence is rejected using the same grounds of rejection as set forth therein.

As per claim 11, only Saether discloses replication repositories (e.g. *2nd global servers* – Fig. 1, 3, 4) for receiving input list from a higher level server and re-constructing of the delivery list. It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the multi-location or channel storage and downloading adjustment at the local level repository to implement replication and intermediate service, i.e. shadow repositories, as suggested by Saether to help recording and duplicating of delivery data for target upgrade activation and information propagating purposes for the same reasons as set forth in claim 1 above.

As per claim 12, this claim is the computer readable medium version of method claim 1, hence is rejected using the corresponding rejection as set forth therein.

As per claim 13, this claim is the computer readable medium version of method claim 2, hence is rejected using the corresponding rejection as set forth therein.

As per claim 14, this is the computer program product version of claim 4 for which MacInnis discloses instructions for performing maintenance action for an upgrade of a program on one target, such action including instructions:

generating (input list downloadable);

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generating (list of files present on the target client) and comparing of those lists;
comparing (list of downloadable files with the list of files present in the target); and
downloading (files which are not yet present); all of which limitations having been
correspondingly addressed in claim 4.

But MacInnis fails to specify that the downloadable input list is retrieved from a sequence of repositories. But in view of the combined teachings by MacInnis and Saether in addressing the use of a sequence of service repositories to improve the task/storage repartition and overhead or overuse of bandwidth resource as set forth in claim 1, this limitation herein would have been obvious for the same rationale as set forth therein.

As per claims 15-16, these claims are the computer program product versions of method claims 5 and 6, respectively, hence are rejected using the corresponding rejection as set forth therein.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A Vu whose telephone number is (571)272-3735. The examiner can normally be reached on 8AM-4:30PM/Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (571)272-3719.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

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(703) 872-9306 (for formal communications intended for entry)

or: (703) 746-8734 (for informal or draft communications, please label

“PROPOSED” or “DRAFT” – please consult Examiner before use)

Hand-delivered responses should be referred to the customer service for the Alexandria Campus at (571) 272 3609.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272 3609.

VAT
November 11, 2004



ANIL KHATRI
PRIMARY EXAMINER